

MGSNRGRKAGGSQDFGAGLKYNSRLENMNGFEEGVEFLPANNA
KKVEKRGPRRNVVLVAQLFSLLLSLMAGLLVWHFPHYNRVNRQKVFNGHLRITNEIFL
DAYENSTSTEFISLASQVEALKLLLYNEVPVLGPYHKKSAVTAFSEGSVIQDYWSEFS
IPPHLAAEVEDRAMAEVRFVTLPPRARALKFSVLTVSVAFPIIDRMLQRTQADNSCSFAL
HAHGAAVTRFTTTPGFNPSPYPAHARCQWVLRGDADSVLSLTFRSFDVAPCDEHGSDLV
TVYDSLSCGMBEASHVRLCGTFSPSYNLTFLLSSQNVFLVTLLTNTDRRHGPFPEATFFQL
PKMSSCGFLSDTQGTFFSPYYPGHYPNINCTWNKIVPNNRNVKRFKLFYLDVDPNV
PVGCTKDYVINGEKYCGERSQFVSSNSKKITVHFSHDHXYTDGFLAEYLSYDSN
DPCPGMFMCKTGRCIRKELRCGDWADCPDYSDERYCRNATHQFTCKNQFCKPLFWVC
DSVNDYCGDQSLDEEGCSPAGFSKCNKGKPLQSQKCNKGKDNCGDGSDEASCDSVNVVS
CTKYTYRCQNGSLCKSKNPECDCGKTDCSDGSEKNCDCGLRSQTKQARVVGGTNADG
EWPVQVSLHALQGHLGASLISPDWLVSAAHCFQDDKNFKYSDYTMWTAFLGLLDQS
KRSASGVQELKLRIITHPSFNDFTFDYDIALLELEKSVEYSTVVRPICLPDATHVFP
AGKAIWVTGWGHTKEGTTGALILQKGEIRVINQTTCEDLMPQOITPRMCMVGFLSGGV
DSCQDGGFLSSAEKDGRMFQAGVVSWEGGAQRNKGPGVYTRLPVVRDWIKEHTGV
(SEQ ID NO:2)

FIGURE 1

underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

CATGGTAGACGGCTGCCCCGAGGGACCACGCGTCTGAGACCGGCGATCGGACCGCCAAAA
CCATGGGTAGCAATCGGGGCCGCAAGGCCGAGGGGGCTCTCAGGACTTCGGCGCGGGGAC
TCAAGTACAACCTCCCGGTAGAGAACATGAATGGCTTTGAGGAGGGTGTGGAGTTCCTGTC
CTGCGAACAAATGCCAAGAAAGTGGAGAAGCGAGGCCCCAGGCGCTGGGTGGTGGTGG
CAGTGCTGTTACAGCTTCCTCTTGCTCTCCCTCATGGCTGGCTTGCTGGTGTGGCACTTC
ATTATCGGAATGTGCGGGTTCAAAAAGTCTTCAATGGCCATCTGAGGATCACAAATGAGA
TCTTTCTGGATGCGTATGAGAACTCCACCTCCACAGAGTTTATCAGCCTGGCCAGCCAGG
TGAAGGAGGCGCTGAAGCTGCTGTACAATGAAGTCCCTGTCTGGGTCCCTACCACAAGA
AGTCGGCTGTAACCTGCCCTCAGTGAGGGCAGTGTATCGCCTACTACTGGTCAGAGTTCA
GCATCCCCCACACCTGGCAGAAGAGGTTGATCGCGCCATGGCTGTGGAGCGAGTTGTAA
CATTGCCACCCCGAGCACGGGCACTGAAATCCTTCGTGCTAACATCTGTGGTGGCCTTCC
CCATTGACCCCAAGATGCTGCAGAGGACTCAGGACAACAGCTGCAGTTTGGCCTGCATG
CCCATGGTGCAGTGTACACGCTTCACTACCCCTGGCTTCCCAACAGTCCCTACCCGG
CGCATGCCGCTGCCAGTGGGTCTGCGGGGGACGCCGACTCTGTGCTGAGCCTCACCT
TCCGAAGCTTTGATGTGCTCCCTGTGATGAGCATGGCAGTGACCTGGTCAACGTGTATG
ATAGCCTGAGCCCCATGGAACCCACGCTGTGGTGGGCTGTGTGGCACCCTTCTCACCT
CCTAGACCTGACTTTCCCTCTCCCTCCAGAAGCTCTTCTTGTACGCTGATAACCAATA
CTGACCGGCGACATCCTGGCTTTGAGGCCACTTCTTCCAGCTGCCCAAGATGAGCAGCT
GTGGCGGCTTTTTGAGTGACACCAAGGGACATTTAGCAGCCCTACTATCCAGGCCACT
ACCCGCCCAACATCAACTGCACATGGAATATCAAGGTGCCCAACAACCGGAACGTGAAGG
TGCGCTTCAAACCTTCTATCTGTTGGACCCCAACGTACCAGTGGGCTCTGACCAAGG
ACTATGTGGAGATCAACGGGGAGAAGTACTGCGGTGAGAGGTCCAGTTTGTGGTGAACA
GCAACAGCAGCAAGATTACAGTCCACTTCCATTCTGATCACTCGTACACGGACACCGGGT
TCCTAGCTGAGTACCTCTCTACGACTCCAACGACCCGTGCCAGGGATGTTTATGTGCA
AGACTGGACGGTGCATCCGAAAGGAAGTGCCTGCGCTGCGACGGCTGGGCAGACTGCCCGATT
ATAGTGATGAGCGTTACTGCCGATGCAATGCCACCCACCAGTTTACGTGCAAAAACCAGT
TCTGCAAGCCCCCTCTTCTGGGTCTGTGACAGTGTCAACGACTGTGGGGACGGAAGTGACG
AGGAGGGCTGCAGCTGTCTGCTGGGAGTTTCAAGTGTTCATGGGAAGTGTCTCCCTC
AGAGCCAGAAGTGTAAATGGGAAGGACAACGTGTGGAGATGGGTCTGACGAGGCTTCATGTG
ACAGCGTGAATGTGCTCTCTTGCACCAATATACCTACCGCTGCCAAAATGGCCTCTGTC
TGAGCAAGGGCAACCCCTGAGTGTGATGGGAAGACGGACTGTAGCGATGGCTCCGATGAGA
AAAACCTGTGACTGTGGGCTGCGATCCTTTACCAAAACAGGCTCGCGTGGTTGGTGGCAGCA
ATGCGGACGAGGGCGAGTGGCCCTGGCAGGTGAGCCTCCACGCCCCTGGGCCAGGGCCACT
TGTGTGGGGCTCGCTCATCTCTCTGACTGGCTGGTCTCTGCACTCATTGCTTTTCAAG
ATGACAAAAATTTCAAGTACTCAGACTACACGATGTGGACGGCCTTCTTGGGTCTGCTGG
ACCAGAGCAAGCGCAGTGCCTCTGGGGTGCAGGAGCTGAAGCTCAAACGTATCATCACCC
ACCTTTCCTTCAATGATTTTCACTTTCGACTATGACATCGCCTTGCTGGAGCTGGAGAAGT
CGGTGGAGTACAGCACCGTCTGCGCCCCATCTGCCTGCCTGATGCTACCCATGTCTTCC
CTGCTGGCAAGGCCATCTGGGTACAGGCTGGGGGCACACAAAAGAGGGAG [GTACCGGA
GCGCTGATCCTGTCAGAAGGGTGAAGCTGTCATCAACCAGACCACCTGTGAGGACCTC
ATGCCGCAGCAGATCACCCACGAATGATGTGTGTGGGTTTCTCAGTGGGGGTGTGGAC
TCCTGC] CAGGGTGACTCTGGTGGCCCCCTTGTCAAGCGCGGAGAAAG [ATGGCGAATGT
TCCAGGCTGGTGTGGTGAAGCTGCGCTCAGAGGAACAAGCCAGGCGTGT
ACACAAGGCTCCCTGTAGTTCCGGACTGGATCAAAGAGCACACTGGGGTATAGCAGCATG
GACAGACAGCCGACCACAAACACCCACAGGGATGCCCACATGCACACCTGGATACAGGA
GAGGAACACTGACGACATTTATGCTGTGGCCTCCCCCCCCCAACACAACCCAGACTGTGA
ACTGCATCCTTAGGACTCAGAGTTCTTCAAAGTGGGACCCCTCAAGAGTTGGAGAGAG
AACTTGCGTGCTAGCGGCCACGCTGGGGGCAAGGGTTTGATGGCAGCCTTCCCCCTCTA
GCCCTGAGCTGGGTGAAGATGATGCTGTCCCGGAGAGCTGCTTCCAACGTGCTATTGAGCT
CCCGGGAGCCCTATGGGAGGAGGGCTCAGGGTCACTCTTTTCAGGAAGCGCCAGCCCTA
GGAACCCAGAAAAGAGTGGTACCTAAGGCTGAAAT] TGTTTTGCTGTTGCCAGGGGTGG
GTATTTGAGAGTAAACATTTTATTTCTTTTAAAAA

FIGURE 2A

Gene Sequence Structure

*

2466 bp

Sequence Deleted

2505 bp

Size of full-length
cDNA: 3106 bp

Targeting Vector*
(genomic sequence)

Construct Number: 2035

Arm Length:

5': 3.8 kb

3': 1 kb

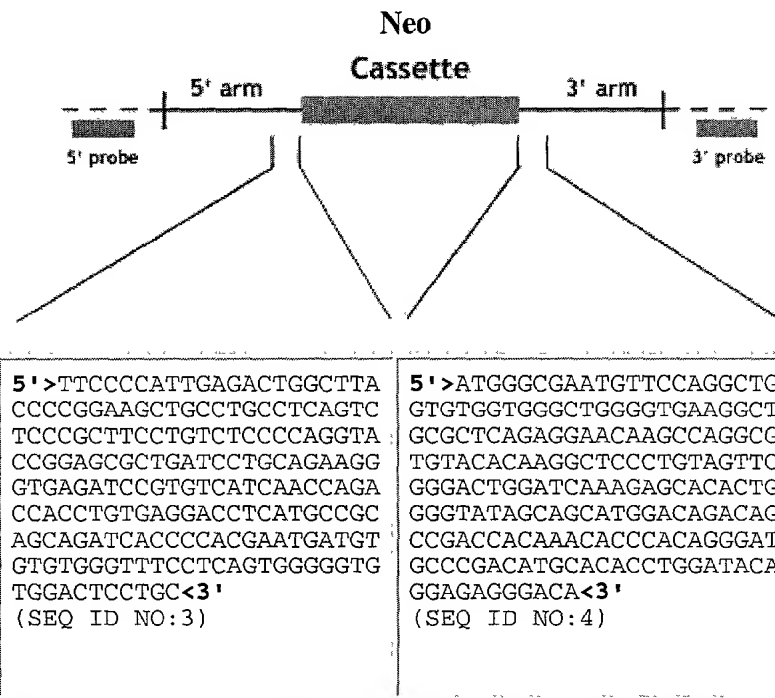


FIGURE 2B